

REMARKS

In view of the above amendments and the following remarks, reconsideration and further examination are respectfully requested.

I. Amendments to the Claims

Independent claims 2, 6, 10, 11, 13 and 14 have been amended to clarify features of the invention recited therein and to further distinguish the present invention from the references relied upon in the rejections discussed below.

It is also noted that claims 2, 6, 10, 11 13 and 14 have been amended to make a number of editorial revisions thereto. These editorial revisions have been made to place the claims in better U.S. form. Further, these editorial revisions have not been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

II. 35 U.S.C. § 103(a) Rejections

Claims 2-5, 10 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Pasanen and Mohebbi. Further, claims 6-9, 11 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable the combination of Pasanen, Jiang and Mohebbi. These rejections are believed clearly inapplicable to amended independent claims 2, 6, 10, 11, 13 and 14 and the claims that depend therefrom for the following reasons.

Amended independent claim 2 recites a wireless network control system including a plurality of base stations that detect and communicate with a mobile terminal, a plurality of relay

stations, each relay station being associated with and communicatively connected to a respective base station, and a wireless network control apparatus that controls a communication between the plurality of base stations and a mobile terminal. Further, claim 2 recites that the wireless network control apparatus includes a management table that stores information (i) identifying the association between each of the plurality of relay stations and the respective base station associated therewith, and (ii) identifying a relationship between a relay station of the plurality of relay stations that is communicatively connectable with a base station of the plurality of base stations that is not associated therewith. In addition, claim 2 recites that the wireless network control apparatus includes a search section that, when more than one base station of the plurality of the base stations detect the mobile terminal through the relay station associated therewith, searches for a base station, from the base stations that detected the mobile terminal, that can be communicatively connected to all of the relay stations associated with the base stations that detected the mobile terminal, based on the information stored in the management table.

Due to the complex nature of the claimed invention, for clarification purposes Applicants provide below an example of the structure required by claim 2 in relation to the figures included in the present application. As an example, Applicants note that each relay station has a base station associated and communicatively connected therewith. Some, but not all, of the relay stations can communicatively connect with another base station that is not associated therewith. Figure 1 illustrates that relay station 103b is associated and communicably connected with base station 102b, but is only communicably connected (not associated with) base station 102a. On the other hand, Figure 1 illustrates that relay station 103a is associated and communicably connected with base station 102a, but cannot be communicably connected to base station 102b.

Information pertaining to the above-described relationship between the relay stations and the base stations is stored in the management table.

When more than one base station detects the mobile terminal through the respective associated relay station, the wireless network control system needs to find a base station that can be communicatively connected to all of the respective relay stations which detect the mobile terminal in order to perform diversity combining. Figure 1 illustrates that base station 102a can perform the diversity combining but base station 102b cannot (based on the relationship identified in the management table). Therefore, the wireless network control system will use the search section to search for and identify base station 102a, based on the relationship identified in the management table.

Pasanen, Mohebibi and Jiang or any combination thereof fails to disclose or suggest the above-mentioned distinguishing features required by independent claim 2 and the claims that depend therefrom.

Rather, as acknowledged in the Office Action, Pasanen merely teaches that a RS can be connected to a primary BS and a secondary BS (see Figs and paragraph [0027]), but fails to disclose or suggest the search section that, when more than one base station of the plurality of the base stations detect the mobile terminal through the relay station associated therewith, searches for a base station, from the base stations that detected the mobile terminal, that can be communicatively connected to all of the relay stations associated with the base stations that detected the mobile terminal, based on the information stored in the management table, as recited in claim 2. Further, as acknowledged in the Office Action, Pasanen fails to disclose or suggest the features of the management table, as required by claim 2.

Now turning to Mohebbi, it is apparent that Mohebbi merely teaches that a table stores information related to a relay station (active cell or base station) of a plurality of relay stations that can be connected to a base station (see paragraph spanning pages 2 and 3 of the Office Action).

However, even though Mohebbi teaches the use of a table storing information related to a relay station, Mohebbi fails to disclose or suggest the management table that stores information (i) identifying the association between each of the plurality of relay stations and the respective base station associated therewith, and (ii) identifying a relationship between a relay station of the plurality of relay stations that is communicatively connectable with a base station of the plurality of base stations that is not associated therewith, as recited in amended claim 2.

Moreover, in view of the above-mentioned distinctions, it is also evident that Mohebbi fails to disclose or suggest the search section that, when more than one base station of the plurality of the base stations detect the mobile terminal through the relay station associated therewith, searches for a base station, from the base stations that detected the mobile terminal, that can be communicatively connected to all of the relay stations associated with the base stations that detected the mobile terminal, based on the information stored in the management table, as recited in claim 2.

Now turning to Jiang, it is clear that Jiang merely teaches that a relay station 136 associated with a base station 130 cannot communicate with another base station 152 that is not associated with the relay station 136 (see Fig. 3 and col. 4, line 37 to col. 5, lines 13).

Thus, in view of the above, it is apparent that Jiang merely teaches that a relay station can only communicate with a base station associated therewith, but fails to disclose or suggest the management table that stores information (i) identifying the association between each of the

plurality of relay stations and the respective base station associated therewith, and (ii) identifying a relationship between a relay station of the plurality of relay stations that is communicatively connectable with a base station of the plurality of base stations that is not associated therewith and fails to disclose or suggest the search section that, when more than one base station of the plurality of the base stations detect the mobile terminal through the relay station associated therewith, searches for a base station, from the base stations that detected the mobile terminal, that can be communicatively connected to all of the relay stations associated with the base stations that detected the mobile terminal, based on the information stored in the management table, as recited in claim 2.

Therefore, because of the above-mentioned distinctions it is believed clear that claim 2 and claims 3-5 that depend therefrom would not have been obvious or result from any combination of Pasanen, Mohebbi and Jiang.

As mentioned above, the structure of claim 2 requires that, when more than one base station detects the mobile terminal through the respective relay station associated therewith, the wireless network control system needs to find a base station that can be communicatively connected to all of the respective relay stations which detect the mobile terminal. Therefore, the wireless network control system will use the search section to search for and identify a base station (i.e., base station 102a) that is communicatively connected to all of the respective relay stations connected to the base stations that detect the mobile terminal, based on the relationship identified in the management table. However, in view of the above, it is clear that the disclosures of Pasanen, Mohebbi and Jiang do not provide the result of the structure required by claim 2.

Furthermore, there is no disclosure or suggestion in Pasanen, Mohebbi and/or Jiang or elsewhere in the prior art of record which would have caused a person of ordinary skill in the art to modify Pasanen, Mohebbi and/or Jiang to obtain the invention of independent claim 2. Accordingly, it is respectfully submitted that independent claim 1 and claims 3-5 that depend therefrom are clearly allowable over the prior art of record.

Amended independent claims 6, 10, 11, 13 and 14 are directed to a control system, an apparatus, a base station, a control method and a control method, respectively and each recite features that correspond to the above-mentioned distinguishing features of independent claim 2. Thus, for the same reasons discussed above, it is respectfully submitted that claims 6-11, 13 and 14 are allowable over Pasanen, Mohebbi and Jiang.

III. CONCLUSION

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

Hidenori ISHII et al.

/Andrew L. Dunlap/

By 2009.09.22 12:02:56 -04'00'

Andrew L. Dunlap
Registration No. 60,554
Attorney for Applicants

ALD/led
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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